

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of the claims in the application:

1-64. (Cancelled)

65. (Previously presented) A process for synthesizing photo-curable poly(ethynyl)carbosilane, comprising the steps of:

reacting a sub-stoichiometric amount of an alkali metal with an organochlorosilane, thereby forming a partially polymerized polyorganochlorosilane; and
reacting the partially polymerized polyorganochlorosilane with sodium acetylide to form photo-curable poly(ethynyl)carbosilane.

66. (Currently amended) The process of ~~claim 58~~ claim 65, in which the organochlorosilane comprises a mixture of organodichlorosilane and organotrichlorosilane.

67. (Currently amended) The process of ~~claim 58~~ claim 65, in which the organochlorosilane comprises a mixture selected from dichlorodimethylsilane, trichlorophenylsilane, and methyltrichlorosilane.

68. (Currently amended) The process of ~~claim 58~~ claim 65, further comprising removing sodium chloride after the first reacting step.

69. (Currently amended) The process of ~~claim 58~~ claim 65, further comprising condensing the partially polymerized polyorganochlorosilane.

70. (Currently amended) The process of ~~claim 64~~ claim 65, further comprising dissolving the partially polymerized polyorganochlorosilane in a solvent prior the second reacting step.

71. (Currently amended) The process of ~~claim 58~~ claim 65, further comprising retrieving the photo-curable poly(ethynyl)carbosilane by solvent evaporation.

72. (Currently amended) The process of ~~claim 58~~ claim 65, further comprising retrieving the photo-curable poly(ethynyl)carbosilane by filtration.

73 - 78. (Cancelled)